

This Page Is Inserted by IFW Operations
and is not a part of the Official Record

BEST AVAILABLE IMAGES

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images may include (but are not limited to):

- BLACK BORDERS
- TEXT CUT OFF AT TOP, BOTTOM OR SIDES
- FADED TEXT
- ILLEGIBLE TEXT
- SKEWED/SLANTED IMAGES
- COLORED PHOTOS
- BLACK OR VERY BLACK AND WHITE DARK PHOTOS
- GRAY SCALE DOCUMENTS

IMAGES ARE BEST AVAILABLE COPY.

**As rescanning documents *will not* correct images,
please do not report the images to the
Image Problem Mailbox.**

M

(12) UK Patent Application (19) GB (11) 2 194 131 (13) A
 (43) Application published 2 Mar 1988

(21) Application No 8719652

(22) Date of filing 20 Aug 1987

(30) Priority data
 (31) 8620555 (32) 23 Aug 1986 (33) GB

(71) Applicant
 Charles McHutchison,
 206 Ayr Road, Glasgow G77 6DT

(72) Inventor
 Charles McHutchison

(74) Agent and/or Address for Service
 Cruikshank & Fairweather,
 19 Royal Exchange Square, Glasgow G1 3AE, Scotland

(51) INT CL*
 A41F 9/00 A63B 31/00 69/12

(52) Domestic classification (Edition J):
 A3V 9B2X
 A6D 41
 B7A AJ

(56) Documents cited
 None

(58) Field of search
 A3V
 A6D
 B7A
 Selected US specifications from IPC sub-classes A41F
 A63B

(54) Swimming aid

(57) An improved non-inflatable swimming aid (10) is described which is particularly suited in assisting children and the disabled on learning to swim. The swimming aid (10) includes a buoyant belt (12) with a nylon strap (14) which can be fastened around a child's waist by Velcro fasteners (20,22) and which has separate handles (18) attached to the belt for gripping by a swimming teacher. In use, the belt permits freedom of movement of the user's arms and legs and also, at the same time, ensures an adequate degree of supervision of the child because the teacher has to hold the belt. Moreover, the swimming aid belt is made of a non-inflatable closed cell PVC foam so that buoyancy is retained and this provides additional confidence to the child.

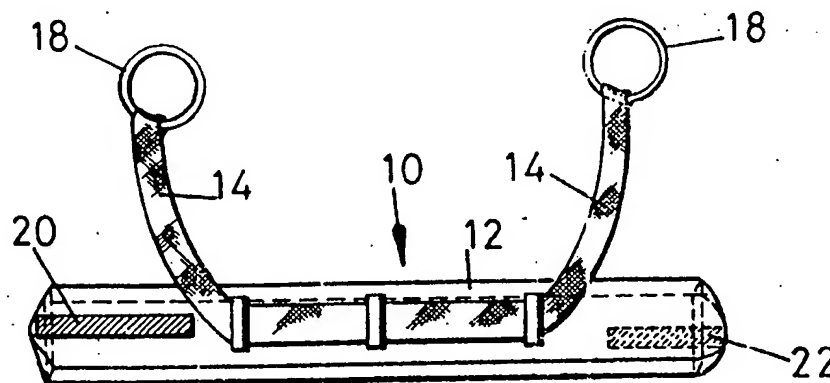


FIG. 2

GB 2 194 131 A

The drawing(s) originally filed was/were informal and the print here reproduced is taken from a later filed formal copy.

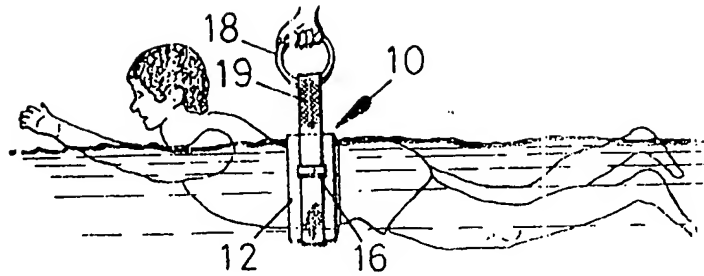


FIG. 1

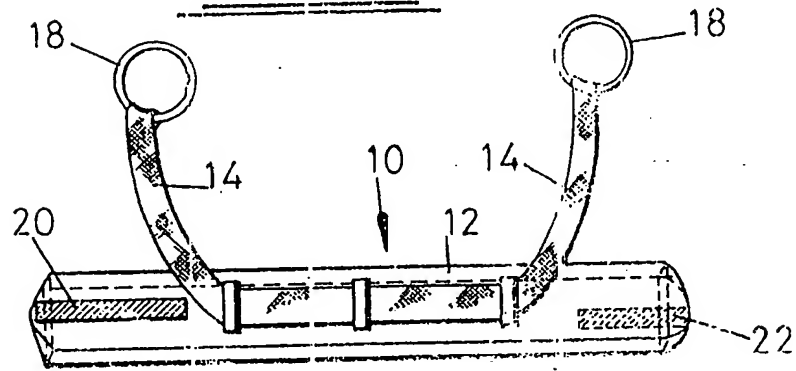


FIG. 2

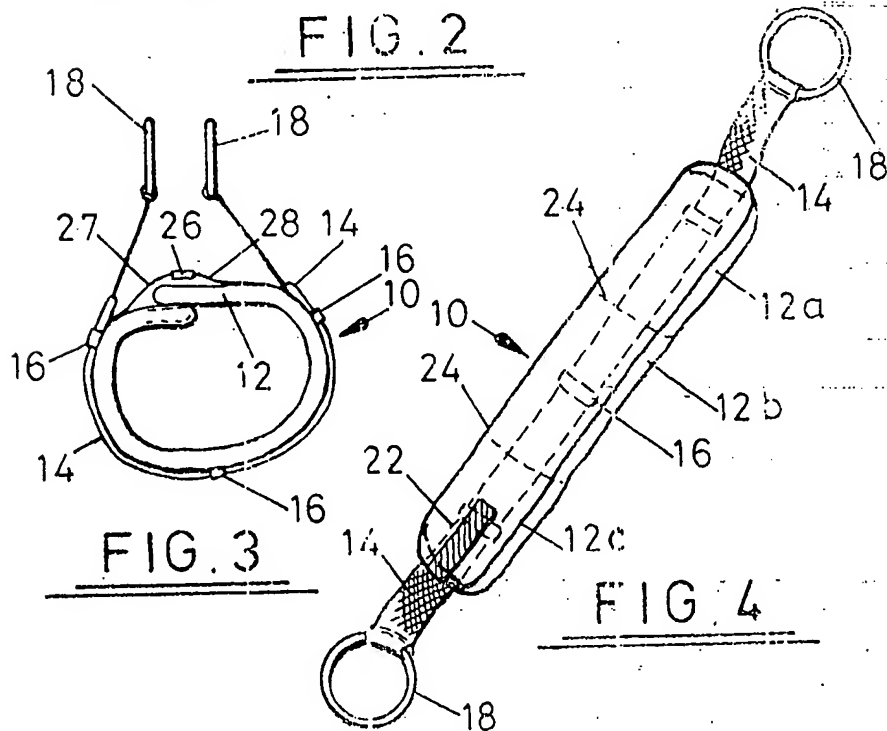


FIG. 3

FIG. 4

SPECIFICATION

Swimming aid

5 The present invention relates to a swimming aid, particularly, but not exclusively for fitting around the waist of children and for teaching children to swim.

Teaching children and in particular, young children to swim is difficult. Many children are inherently afraid of water and are reluctant to let go of the parent, and existing buoyancy aids such as arm floats and life belts often restrict the movement of the arms and legs which are necessary to develop a proper approach and movement to learn to swim properly. Furthermore, with such floatable devices leakage of air can occur with the result that buoyancy varies and causes difficulties or complications in floating. This could affect the confidence of a child and is a further disadvantage associated with such existing devices.

An object of the present invention is to provide an improved swimming aid which obviates or mitigates one or more of the aforesaid disadvantages. This is achieved by providing a buoyant belt which can be fastened around a child's waist by Velcro fasteners and which has separate handles attached to the belt for gripping by a swimming teacher. In use, the belt permits freedom of movement of the user's arms and legs and also, at the same time, ensures an adequate degree of supervision of the child because the teacher has to hold the belt. Moreover, the swimming aid belt is made of non-inflatable closed cell PVC foam so that buoyancy is retained and provides additional confidence to the child.

As an added feature, the device is made of bright fluorescent materials to provide easy visibility and it can also be used as a float for the child in the absence of swimming tuition.

The aid is made of inexpensive readily available materials and fastening is achieved using Velcro (Trade Mark) type fasteners which is easy to attach and release even for young children.

According to the present invention there is provided a swimming aid comprising a buoyant belt portion adapted to be fastened around the waist of a user, said buoyant belt portion having a strap means coupled thereto for assisting in supporting the weight of the user, said strap means having holding means for holding the device to support the user and in use permit freedom of movement of the limbs of the user.

Preferably, the buoyant belt portion has a cover which includes Velcro fasteners disposed on the inside and outside of the belt for fastening and unfastening the swimming aid around the waist of a user.

Preferably, the strap means passes through strap loops disposed on the outside of the buoyant belt portion to be strapped and termi-

nates at said holding means in the form of handles for gripping by a teacher or helper.

Preferably, the belt wrap length is adjustable to accommodate varying sizes of user by varying the overlap of the Velcro fasteners. Conveniently the belt is made of brightly coloured fluorescent materials to assist in identification of the user.

Preferably also, the buoyant belt portion consists of non-inflatable closed cell PVC buoyant foam and has a fluorescent cover which is water repellent.

These and other aspects of the invention will become apparent from the following description when taken in combination with the accompanying drawings in which:

Fig. 1 is a side elevation of a child depicted learning to swim using a device in accordance with an embodiment of the invention;

Fig. 2 is an enlarged view of the device of Fig. 1 with the belt unrolled.

Fig. 3 is an end elevation of a rolled up belt shown in Fig. 1; and

Fig. 4 is a perspective inside view of the belt shown in Figs. 1 to 3.

Reference is first made to Fig. 1 which depicts a swimming aid 10 in accordance with an embodiment of the invention placed around the waist of a child and being held by a supervisor. It will be appreciated that in this position with no restriction on the movement of the child's arms and legs the proper swimming techniques and strokes can be taught and learned. It will be seen that the swimming aid consists of a waist belt 12 around which is placed a nylon strap 14 held in place by belt loops 16 and the ends of which are attached to circular plastic rings approximately 33/4" in diameter which are held by the supervisor.

Reference is now made to Figs. 2, 3 and 4 of the drawings which depict the swimming belt aid in greater detail. The belt 12 is made of a single piece of thick closed cell PVC foam (Vitacell brand, Vita Salford Ltd., UK) which is totally water repellent and nonabsorbing and is proportioned to be 32" by 4" by 20mm thick. Sewn around the foam is a fluorescent orange 100% nylon which is factory treated on both sides with water repellent agents. Three belt ties 16 are sewn to the orange nylon on the outside wall as best seen in Fig. 3 and the length of 50" by 50mm green nylon strapping 14 is passed through the belt loops 16. On each end of the green strapping the plastic ring 18 is disposed, whether generally spaced apart, or parallel as seen in Fig. 3, and is gripped by an adult using a single hand or using two hands. The belt 12 includes Velcro fasteners 20 and 22 on the outside and inside surfaces of the belt respectively so that when worn as shown in Fig. 3 the ends of the belt overlap so that the fasteners 20 and 22 attach. It will be appreciated that because of the elongate fasteners 20 and 22 the size of the belt is adjustable to

accommodate various waist sizes.

In use, the swimming aid is fitted round the child as shown in Fig. 1 and the Velcro fasteners adjusted until there is a snug fit. The rings are then held by the supervisor and the child is free to practice swimming strokes. It is intended that this belt is not a buoyancy aid *per se* and should be worn only in the presence of a supervisor. If the supervisor decides to let the child attempt to swim unaided the ends of the belt can be tied together so that the closed cell PVC foam provides some added buoyancy.

It will be appreciated that various modifications may be made to the swimming aid hereinafter described without departing from the scope of the invention. For example, any other suitable type and arrangement of Velcro fastener as well as other fasteners can be used for the belt as long as it permits adjustment of the belt diameter and also means other than rings can be used to suspend the child, for example, rings may be omitted or replaced by fabric handles. In addition, the outside material can be replaced by any other suitable material and the sizes and dimensions of parts can be varied depending on requirements. For example, the closed cell foam can be 50mm or more thick. Although the buoyancy aid is intended for use with children, it may also be used, on a larger version, for assisting adults when learning to swim. In addition it is particularly suitable for assisting disabled children and adults in swimming as well as learning to swim.

Furthermore, the belt may comprise separate pieces of foam which permit easier folding of the belt at the joins and which minimises foam wastage during manufacture. Thus, instead of having a single elongate piece 12, three separate foam pieces 12a, 12b and 12c (Fig. 4) could be used and nylon cover at joins 24 may be sewn to facilitate folding of the belt. Also a clip 26, best seen in Fig. 3 may be used in addition to the Velcro strips 20, 22 which retain the belt closed to ensure that the belt closure is secure. The clip consists of straps 27, 28 connected to opposite ends of the belt cover which have male and female clip portions at their other ends which may be releasably coupled to form the closed clips 26 shown in Fig. 3.

Advantages of the invention are that it allows the teaching of children or adults to swim without restricting the movement of the arms or legs. It is convenient and easy to use and the supervisor can suspend the child or adult with a single hand. The swimming aid uses relatively inexpensive materials and is rapidly and easily manufactured.

CLAIMS

1. A swimming aid comprising a buoyant belt portion adapted to be fastened around the waist of a user, said buoyant belt portion

having strap means coupled thereto for assisting in supporting the weight of the user, said strap means having holding means for holding the device to support the user and in use, permit freedom of movement of the limbs of the user.

2. A swimming aid as claimed in claim 1 wherein the buoyant belt portion has a cover which includes Velcro fasteners disposed on the inside and outside of the belt for fastening and unfastening the swimming aid round the waist of a user.

3. A swimming aid as claimed in claim 1 or claim 2 wherein the strap means passes through strap loops disposed on the outside of the buoyant belt portion to be strapped and terminates at said holding means in the form of handles for gripping by a teacher or helper.

4. A Swimming aid as claimed in any preceding claim wherein the belt wrap length is adjustable to accommodate varying sizes of user by varying the overlap of the Velcro fasteners.

5. A swimming aid as claimed in any preceding claim wherein the buoyant belt portion consists of non-inflatable closed cell PVC buoyant foam and has a fluorescent cover which is water repellent.

6. A swimming aid as claimed in any preceding claim wherein said buoyant foam is a single piece of foam.

7. A swimming aid as claimed in any preceding claim which consists of separate pieces of buoyant foam which define joining lines on said cover, said swimming aid being readily foldable along said joining lines.

8. A swimming aid as claimed in any preceding claim including releasable clip means coupled to said cover for assisting in closure of said swimming aid when being worn by the user.

9. A swimming aid substantially as hereinbefore described with reference to the accompanying drawings.

Published 1988 at The Patent Office, State House, 66/71 High Holborn, London WC1R 4TP. Further copies may be obtained from The Patent Office, Sales Branch, St Mary Cray, Orpington, Kent BR5 3RD. Printed by Burgess & Son (Abingdon) Ltd. Con. 1/87.